

The Wobbly Oscillator



Cuyahoga Amateur Radio Society

May 2021

Volume 51

Number 5



May Meeting at Harriet Keeler

From The Prez

We're Going Outside

The members present at the April Meeting voted to have the next meeting outdoors at the Harriet Keeler Picnic Area. We might as well make this a picnic meeting, so we will have the grille going by about 6:00.

We will format the meeting similarly to how we have done the last several months. The actual meeting will begin at 7:30 from the pavilion and we will patch in Zoom and the repeater. The Zoom meeting will be projected on the screen in the pavilion. Once again, Ron, K8RJH, will monitor and control the Zoom element, and David, KD8ACO, will control the repeater.

The Harriet Keeler Picnic Area is located in the Brecksville Reservation of the Metroparks on Chippewa Creek Dr. off Rt. 82, east of Rt. 21. There is a map on the CARS website home page.

With the opportunity to attend the meeting in person, via Zoom on the internet, or on the repeater - which is capable of 2 meters, UHF digital Fusion, EchoLink, and AllStar; there is little or no reason not to attend the May meeting. Hope to "see" you there.

Matt Nickoson Presentation

Matt Nickoson, KC8NZJ, ARES District 10 Emergency Coordinator will be our guest speaker at the May meeting. He will cover the full spectrum of Skywarn. Matt will explain what Skywarn is, the training offered, the functions of Skywarn, and how individuals can get involved. The presentation will certainly be thorough, and Matt will be able to answer questions from the audience.

Memorial Day Parade

The Seven Hills Memorial Day Parade is back on for this year. CARS was contacted and asked if we would be able to assist as we have in the past. We gladly accepted the invitation. We will meet at 9:00 AM on Memorial Day at St. Columbkille Church, 6740 Broadview Rd. in Parma. Members wishing to participate should bring a 2 Meter HT, as we will be using the CARS repeater. Anyone interested should contact Toby, WT8O, to sign up.

Picnic

Our annual Summer Picnic is back on the schedule after a year's hiatus. We have already reserved the Kiwanis pavilion in Independence. The event is FREE to CARS members, their families, and friends. We've scheduled it for a Friday evening, which has proven to be the most popular day. The date will be July 30th, and we will start at 5:00 PM. Please see the attached flyer for more details and make your reservations soon.

73, Toby, WT8O

May Net Shed

MAY	5	KC8ESG
MAY	12	WT8O
MAY	19	K8RJH
MAY	26	N8OWS

**Nets are run every Wednesday
at 9:00 PM on:**

146.820 (PL 110.9)

443.825 (+) PL Tone 131.8

Digital Yaesu Fusion

Linked to 146.82 Repeater

EchoLink Node 343470 (K8ZFR-R)

Allstar Node 47067



At the April meeting Scott, AC8NW, took off the feedbag and happily filled everyone in on the progress his team had made with the club repeater.



Once again, the gang enjoyed the cuisine served at My Friends Restaurant at the April meeting.

Minutes of the CUYAHOGA AMATEUR RADIO SOCIETY April 13, 2021 (Tuesday)

LOCATION---The meeting was held at My Friends Restaurant, at 11616 Detroit Avenue in Cleveland. The meeting was also available via Zoom and on the club repeater.

CALLED TO ORDER---The meeting was called to order by President Toby Kolman, WT8O, at 7:30 P.M.

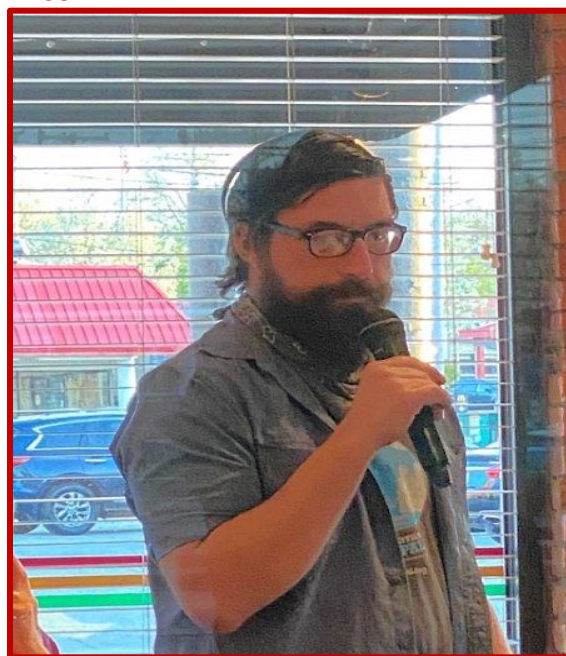
PLEDGE OF ALLEGIANCE---Those present pledged allegiance to the flag of the United States of America.

INTRODUCTIONS---Those present, as well as those on Zoom and on the club repeater, were introduced.

MARCH MINUTES---The March minutes were approved as published in the *Wobbly Oscillator*.

TREASURER'S REPORT---Bob Robbins, W8RGI, gave the Treasurers' report. Dues can be paid directly to Bob this evening.

PRESIDENT'S REPORT---President Toby, WT8O, reported that we have been invited to the Seven Hills Memorial Day parade. Volunteers are welcome and can contact Toby for more information. Assembly will be at St. Columbkille on Broadview Rd. at 9:00 AM on May 31, 2021.

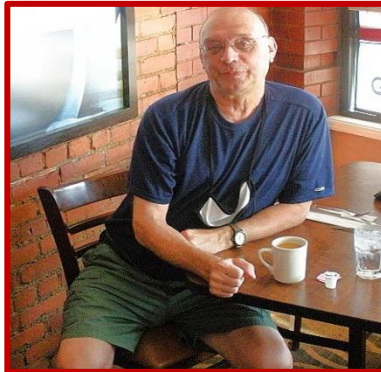


New member Shawn, KE8RMV, acquaints himself to the group after being voted into the club.

Toby requested material for the *Wobbly Oscillator* - items for sale, pictures, articles, or anything else. Please update your membership information - classification, address, phone number, etc. - with the webmaster. Shawn, KE8RMV, volunteered to make coffee at meetings. The club needs a photographer. A tool and equipment pool for use by members was suggested. Feedback on the suggestion can be provided directly to Toby.



The jolly group of Bob, K8RGI; Andy, KD8SCV, and Joe, KD8BAL, brought a lot of good cheer to the meeting.



Bruno, W8BJS, Was like the breath of spring, sporting his warm weather threads.



Cash in hand, Eddie, KD8FTS, supports the club and hopes to win some bucks in the 50/50.

VICE PRESIDENT'S REPORT---Mark Moro, WJ8WM, reported that the audit of our finances found no discrepancies. Because there was no club Field day or Picnic last year, the club's finances were significantly different in 2020 compared to previous years.

SECRETARY'S REPORT---Ed Stevens, WB8ROK, had nothing to report.

NEW MEMBER---A new member, Shawn Cresante, KE8RMV, was voted into the club.

PUBLIC SERVICE---Eddie, KD8FTS, reported that the Cleveland Marathon is delayed until the fall this year because of the pandemic. The location and date are yet to be determined. Volunteers for the marathon will be needed. The Pan Ohio Hope Ride, that supports the American Cancer Society, is normally a four-day bike ride from Cleveland to Cincinnati. Hams usually help out on the portion of the event that is in their local area. This year, because of the pandemic, the event will follow a four-day cloverleaf pattern near Dayton, Ohio. The event will occur near the end of July and volunteers are needed. Contact Eddie for more information if interested in helping. The Cuyahoga County ARES website has current information for most local public service events.

VE UPDATE---Metro, W8MET, reported that there were five new technicians, five general upgrades, and one that went straight to General. Thanks to George, K8KR, and the rest of the team for helping.

PROGRAM COMMITTEE---Joe, KD8BAL, reported that Matt Nichoson, KC8NZJ, will give a presentation on Skywarn.

TECH COMMITTEE---Scott, AC8NW, reported that there were improvements to the repeater recently. The link receivers were replaced, which freed up space in the rack. The voter was replaced with one that has digital signal processing and adjustable delays. The voter can be monitored and controlled via the internet. A UHF amplifier was added but not hooked up yet. Audio delays and level setting is still required. The work was performed on April 10, 2021 and took nine hours. Ron, K8RJH, and Vince, N8OVW, helped with the work. Toby, WT8O, commented that we have one of the best repeaters in the area. Mark, KC8FQV, asked for more details on the internet based monitoring available on the voter and if it will be similar to the Puget Sound repeater. Ron, K8RJH, responded that the technical committee will determine the scope of monitoring and how it will be used. The voter monitoring will be used during the April 14, 2021 CARS net.

FIELD DAY---Bob, W8RGI, reported that the 2021 CARS Field Day will once again be held at Calvin Park. Because of the pandemic, the rules allow for operations from home stations to be added to club scores. This year Field Day weekend will be on June 26th and 27th. CARS will have CW, digital, and voice operations. Food will be provided by Bill, N8BBB. More information will be provided in upcoming meetings.

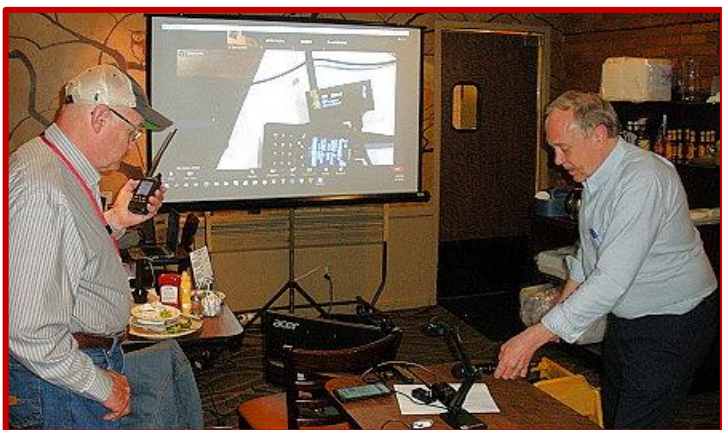
NEXT MEETING---The next meeting of The Cuyahoga Amateur Radio Society will be on May 11, 2021. A vote was taken to determine the location of the next meeting. The options were My Friends Restaurant, and the Harriet Keeler pavilion in Brecksville Reservation of the Cleveland Metroparks. Despite a vote from a restaurant employee (not a club member) the club voted to have the next meeting at the Harriet Keeler pavilion in Brecksville Reservation of the Cleveland Metroparks. Two concerns were raised: the pavilion might not yet be available because of the pandemic, and there may not be electricity in the pavilion. It was decided that if the pavilion is not available, or if there is no electricity, the meeting will once again be held at My Friends Restaurant. The meeting will be made available on Zoom and on the club repeater.

50/50 drawing ---The 50/50 drawing was won by Metro, W8MET. The amount was \$29.50.

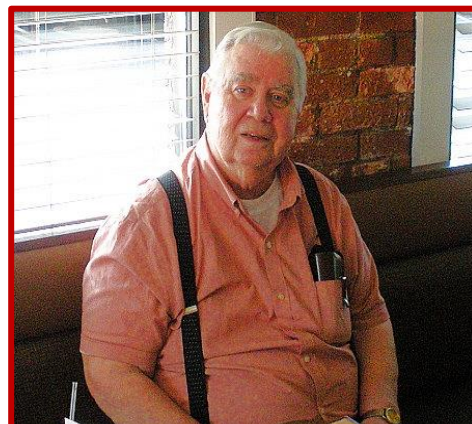
ADJOURNMENT---The meeting was adjourned at 8:15 P.M.

PROGRAM---After the meeting Ron Hollas, K8RJH, and Andy Evridge, KD8SCV, gave a talk on Digital Amateur Radio HotSpots and Digital Voice Modes (DVM).

Ed Stevens, WB8ROK, Secretary



Andy, KD8SCV, and Ron, K8RJH, did a bang-up job of demonstrating HotSpots and Digital Voice Modes.



It sure is good to see George, K8KR, attending the meetings.

Having fun with only 200 mW and an End-Fed Antenna
(Building and Testing an Effective End-Fed Antenna design for 160- 10 Meters)
Ron, K8RJH

If you are looking for that first HF antenna, or just wanting to experiment with another antenna for the Amateur shortwave bands, consider the option to use an end-fed long wire. When configured and built properly, it can operate with good results for both the new amateur and seasoned DX contester on the popular Ham bands with a relative low cost for the home or portable station.

My initial requirements were to attempt an end-fed design to take advantage of using a tall tree as an end support and allow operation on several HF ham bands. In addition, the appeal of selecting a broadband design would allow an internal tuner of a modern HF solid-state transceiver to compensate expected residual antenna SWR (typically under 3:1) without external tuners. Another objective was that the parts to construct the antenna may be used for temporary or portable applications and be easily duplicated for new installations. My original intended use of this antenna was to demonstrate radio theory for new amateurs and STEM students. I ended up with an effective design that is now part of my home station for the amateur low bands.

The simple description of this end-fed antenna design consists of a suspended wire that is a non-resonant (non-harmonic) 135 foot length, connected to a matching transformer (balun) and fed with common 50 Ohm coax to the station transceiver. Shorter wire lengths may be used based on lot size and landscape availability. A good reference on End fed non-resonant lengths and the amateur bands that they cover may be found in a University of Delaware engineering paper <https://udel.edu/~mm/ham/randomWire/>

The fun part was constructing the antenna and “tuning” the wire length, ground radials, balun wiring, and testing of the installation to see how close I came to the “text book” theory. I was initially very encouraged to see how the end-fed actually performed when connected to an antenna analyzer. Seeing that the VSWR matches were well below 3:1 for the popular ham bands, I connected a 200 mW (that’s only 0.2 watt) WSPR beacon transmitter and monitored the surprising results for a week (Check out the report graphic from wsprnet.org). No doubt, this antenna is a performer!

The next steps are to make incremental changes to the ground plane radials to improve the SWR metrics on 160 and 80 meters this summer and weatherproof the feed point network for the upcoming fall and winter weather. In the meantime, I’ll enjoy working the HF Bands!

Reference: These Non-resonant, Non-Harmonic antenna designs have been presented in several articles that can be researched on the internet, with one of the earliest writings found in QST, March 1936, p. 32, “An Unorthodox Antenna”

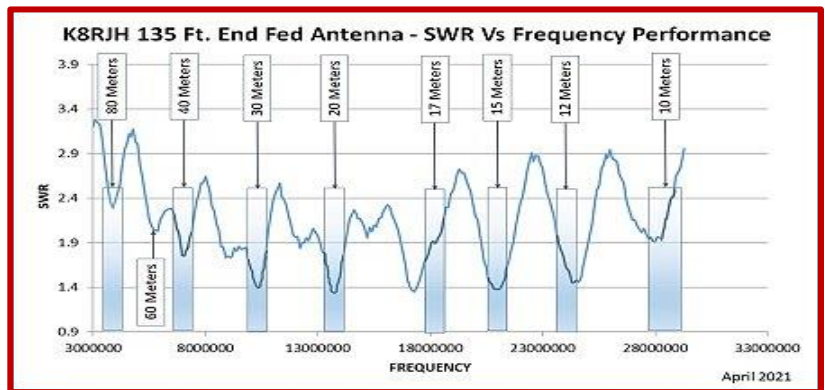
Additional information on WSPR Beacons can be found at: <https://www.instructables.com/WSPR-Weak-Signal-Propagation-Reporter-Stand-Alone-/>



End Fed Matching Balun Transformer at the K8RJH Long Wire Antenna Site.

Description: The installation is 8 Ft above ground level and is open air to allow for convenient access and testing. The Balun Material is two cores of Type 52 with five quadrifilar windings through the core. The white wire is the 5 turn primary with the red wires being the secondary that matches the antenna with a 1:16 turns ratio. This is necessary as the Endfed feed point is elevated above ground more than several feet. The far end of the antenna is approximately 95 feet in height giving an antenna slope of around 40 degrees. There are two surface ground radials at 35 ft length connected to the feed point coax connector and placed pointed away from the direction of the wire antenna. A coax current choke is placed at the radio end to isolate the ground loop into the station equipment.

The actual VSWR curves as measured by an antenna analyzer show the matching circuit of the Balun wirings and grounding network are close to “textbook” for this installation.



This is the K8RJH Beacon Station. The WSPR transmitter unit is connected to the coax current choke (cover removed) and placed on the air. This WSPR transmitter unit only transmits at 200 mW (0.2 Watt) RF power.

Field Day 2021 Bob, K8RGI

The club planned to have an in-person Field Day site at Calvin Park this year. We had planned to make this a private event and not invite the public. But since Calvin Park is at a public park, we would not be able to prevent non club members from wandering through our site. We also have no way to be sure that all participating club members have been vaccinated. Therefore, in an overabundance of caution, we have decided not to have a physical Field Day site. This does not, however, mean we cannot participate in Field Day as a club.

The ARRL, in their wisdom, has extended the COVID-19 Field Day rules from 2020 to 2021, with some minor modifications. This means that we can each participate in Field Day at our home stations. We will then submit our scores to the ARRL, individually, and they will be added together to yield a club score. This year home stations, which are considered Class D, may work all other Field Day stations. The only restriction is that Class D or E stations are limited to only 150 watts. Complete rules can be found at: <http://www.arrl.org/field-day-rules>.

There are some advantages to operating home stations. For example, an SSB station at a club site can only contact another SSB station once for one point. Home stations can each contact the same SSB station for one point multiplying the total. Also, each home station can individually accumulate bonus points such as receiving the W1AW Bulletin which is good for 100 points.

To make this an inclusive club event, we will be using the N3FJP Club Score Processor. Ron Hollas, K8RJH, has agreed to host this software on an available server. Once setup, this will allow each operator to monitor his score in addition to the score of all other participating stations and a club total score. The only requirement is that everyone needs to use the N3FJP ARRL Field Day Contest Log 6.5 <https://www.n3fjp.com/fieldday.html>. Not to worry, complete instructions and training will be forthcoming.

As an added incentive, club members who agree to participate by making contacts, using the Club Score Processor and submitting their scores to ARRL under the club name will receive a free 2021 Field Day short sleeve shirt. To reserve your shirt, email me indicating your willingness to participate along with your shirt size, small to 5XL at robert@rjrobbins.net by June 1st. It would be nice if everyone would have a picture taken of themselves wearing the shirt while operating their stations for inclusion in the July *Wobbly Oscillator*.



NEMARCS Total Score = 417,518

Current status as of: 2015/11/23 10:18:36 UTC

Uploading Participants:

Call	Score	QSOs	20 Min	60 Min	Frequency
W3JX	186,584	1,124	27	27	28.84600
N3FJP	91,964	554	30	24	14.15980
KA2BKG	51,460	310	18	24	14.31800
KB3KNX	32,400	200	27	19	3.80900
N3FM	27,556	166	9	13	3.82537
WC3N	18,758	113	15	5	7.13890
K4JDF	8,320	104	12	4	3.86399
KA3YJM	476	17	0	0	

North Coast Weather Toby, WT80

Living in Northern Ohio for more decades than monkeys have fingers on one hand, I have never run into anyone who said they moved here for the weather. In contrast, I've met tons of people who left town because of it. Our brutal winters caused them to seek relief in the warmer climes of California, Arizona, Florida, Texas, or the Carolinas. I heard of one fellow who retired, tied a snow shovel to his front bumper, and headed south. He stopped for gas in Columbus Georgia and the attendant pointed to the shovel and said "What's that." The traveler ended his trek right then and there, and lived the rest of his life in the warmth of Georgia.

Even though things can be crazy, the weather here is still pretty predictable. By crazy - think about Thanksgiving and Easter. Some Thanksgivings I remember tossing a football around with the kids in shirtsleeves; other times temperatures were in the teens and we dislodged cars stuck in deep snow. One of the worst blizzards in Cleveland history paralyzed the city on Thanksgiving Day back in the early fifties. Easter has its similar variations. This year we hid decorated eggs around the house and yard; the grandkids hunted for them wearing shorts. Some years deep snow would have forced that activity indoors. But predictably, our summers are hot and our winters are cold with snow. Just as predictable are the people that complain about our weather ninety percent of the time. I wonder what Mark Twain would have concluded about Clevelanders comments.

Some Clevelanders roll with the weather much better than others. I've heard many people say they enjoy the change of seasons. Those native to Phoenix have never felt the exuberance of some of the beautiful spring days we are now experiencing. Others enjoy the winter. It gives us a time to reflect and catch up. If you can't appreciate sitting in front of a blazing fireplace in January and gazing out the window at the snowflakes gently falling and covering the landscape with pristine cleanliness – well, I feel sorry for you. Some adventurers, even farther up the scale, plaster "Think Snow" bumper stickers on their cars and hit the slopes with skis or blast across the countryside on snowmobiles.

Being an avid motorcyclist, I do miss the joys of riding when the roads are covered with snow, ice, and salt.

But we are hams. Our hobby can be enjoyed and pursued any time of year, any time of day. In the wintertime we don't even have to worry about outdoor chores like mowing the lawn. We can set the heat at a comfortable temperature, pour a cup of coffee or tea, plop into a chair at our operating point, and start spinning the dials.

Some might call this nirvana.

May Birthdays

Mike Mraz, KASMZS 5/12/40

Bill Kemmett, KDSQBB 5/13/47

John Papay, KSYSE 5/15

Jerry Smith, NW9H 5/19/41

Roy Baldner, KESKOL 5/27/54

May VE Session

The next VE testing session will be held Sunday, May 9th, at 9:00 AM, at the Kiwanis Pavilion, 6363 Selig Drive (Behind the Independence Civic Center) in Independence, 44131

For information or an appointment, please contact Metro, W8MET, at 216-520-1320 or metro351@sbcglobal.net. As always, walk-ins are welcome.

Help!

We are in desperate need of a venue to hold our future VE sessions. We were fortunate to get the Kiwanis Pavilion for May, but the pavilion is reserved for the rest of the dates we have VE sessions scheduled this year. We have been using the Masonic Lodge in Westlake, but that location may not be available much longer. Please – if anyone knows or can suggest somewhere we can hold our VE sessions, contact Metro, W8MET at the phone number or email address above.

Next CARS Meeting

Tuesday, May 11th - 7:30 PM
Harriet Keeler Picnic Area
Brecksville Reservation
Fire going at 6:00 PM

**Also on Zoom &
The CARS Repeater**

Guest Speaker
Matt Nickoson, KC8NZJ
Cuyahoga County ARES EC
Topic: Skywarn

Honorary Members

Any person who by nature of
outstanding or meritorious contribution
to the furtherance of amateur radio and
the ideals of the Cuyahoga Amateur
Radio Society

Robert Check, W8GC
Elected 2/10/15

Thomas Wayne, WB8N
Elected 1/10/17

Dwaine Modock, K8ME, SK
Elected 5/9/17

Toby Kolman, WT8O
Elected 10/10/17

Jerry Smith, NW9H
Elected 5/8/18

Ron Borkey, K8VJG, SK
Elected 5/14/19

NASA Report
Bob, KC8MRC

NASA has selected SpaceX to build the human landing system for the moon. The winning bid was about \$2.9 billion. The first landing will be about five years away.

On April 16, 1867 in aviation history Wilbur Wright was born in Millville, Indiana. Five years later his brother Orville Wright was born in Dayton, Ohio.



The *Wobbly Oscillator* is a publication of the Cuyahoga Amateur Radio Society, P.O. Box 31264, Independence, Ohio, 44131-0264. Articles from this publication may be reprinted in any ham radio publication, provided that credit is given to this publication and the author, if known. All submissions should be emailed to: wt8o@att.net by the end of the month for publication in the next month's issue.

CARS
Repeaters

146.820 (-) PL Tone 110.9

Main Site – Brecksville

Receive Only Site – Brunswick

Receive Only Site – Shaker Hts.

Allstar Node 47067

EchoLink Node 343470 (K8ZFR-R)

443.825 (+) PL Tone 131.8

Digital Yaesu Fusion

Linked to 146.82 Repeater

Brecksville

444.75 (+) Receive PL Tone 131.8

449.75 Transmit

Stand-alone Not Linked

Shaker Hts.

RadioSport

Contests

May 4, 0100 – 0159 **Worldwide Sideband Activity Contest** 1.8 – 50 Ph wwsac.com/rules.html
Exchange: RS, age group (OM, YL, or Youth)

May 8, 1200 – May 9, 1159 **CQ-M International DX Contest** 1.8 - 28 CW Ph cqm.srrru/en-rules
Exchange: RS(T), serial

Special Events Stations

May 9, - May 15, 0000-2359 **K3FBI/0 through 9** Quantico, VA **National Police Week-Honoring Our Fallen Heroes** 14.275 14.074 7.275 7.074 all bands, all modes Certificate & QSL www.qrz.com/db/k3fbi

May 28, - May 31, 1800 – 1800 **W3M** State College, PA **Birthplace of Memorial Day**
7.195 QSL www.qrz.com/db/w3m

QSO Parties

May 1, 1300 – May 2, 0700 **7th Call Area QSO Party** 1.8 - 28 CW Ph 7qp.org
Exchange: RS(T), 5-letter state/county code or SPC (State , Province, DXCC Entity)

May 1, 1500 – May 2, 0300 **Indiana QSO Party** 1.8 – 28 CW Ph hdxcc.org/ingp/rules.html
Exchange: RS(T), county or SPC

May 1, 1700 – May 2, 2359 **Delaware QSO Party** 1.8 – VHF CW Ph www.fsarc.org/qsoparty
Exchange: RS(T), county or SPC

May 1, 2000 – May 2, 2359 **New England QSO Party** 3.5 – 28 CW Ph Dig www.neqp.org/rules.html
Exchange: RS(T), W1 county/state or SPC

May 8, 1400 – May 9, 0200 **Arkansas QSO Party** 3.5 – 144 CW Ph www.arqp.com
Exchange: RS(T), AR county or SPC

May 21, 1200 – 2359 **Hamvention QSO Party** 3.5 – 28 CW Ph wwrof.org
Exchange: RS(T), first year attended Hamvention

Sampling from May, 2021 QST - Pg. 71 and 82. See QST for many more events.

All times in GMT ZULU time.

CARS 2021 Officers & Committees

Audit

WJ8WM ** WT8O, KD8OUE

Audio/Video

AC8NW **

ARRL Liaison

WJ8WM **

Awards

W8GC ** WT8O

Christmas party & Summer Picnic

WJ8WM **, K8ARP

Club Photographer

N8OWS **

Field Day

K8RGI **, WT8O, WJ8WM, K8ARP, KD8SCV, AC8NW, AC8TN, WT8O, K8RJH, N8BBB food

50/50

KD8SCV

Hamvention Bus

KD8FTS **

License classes

KD8ACO **, WT8O, K8SHB

Media Representative

KD8SCV

Membership

WT8O ** W8GC

NET

WT8O **

Newsletter

WT8O ** 440-525-6109

wt8o@att.net

Programs at Meetings

KD8BAL ** KD8FTS, KE8OZU

Property Custodian's

KB8DTC records, W8GC equipment

Public Services

KD8FTS **, K8ARP

QSL Manager - W8HBI, W8BM

WB8N **

Refreshments at Meetings & Picnic

K8RJH ** pop, NW8X ** Donuts

Scholarship

W8GC ** WJ8WM, K8RGI, WB8ROK, WT8O

Sunshine (welfare)

Andy, KD8SCV ** 440-886-0723

Technical

AC8NW ** N8OVW, WJ8WM, KD8ACO, K8RJH, KB8DTC

VE Exams

Metro, W8MET ** 216-520-1320

Web Master/e-mail

W8GC **

** chairman or co-chairman

2021 Officers

PRESIDENT

Toby Kolman WT8O 440-525-6109

wt8o@att.net

VICE-PRESIDENT

Mark Moro, WJ8WM 216-661-0342

SECRETARY

Ed Stevens, WB8ROK 216-267-5473

Alternate Secretary: KE8OZU

TREASURER:

Bob Check W8GC 216-524-1750

Alternate Treasurer: Bob Robbins, K8RGI

Board Members & License Trustees

Board Chairman:

Mike Kemmett, KD8OUE 216-744-4636 c

Alternate Chairman:

K8ARP, Arp Viiberg

even year executive board 2 year term

AC8NW, KB8DTC, KD8OUE

odd year executive board 2 year term

K8RGI, K8ARP, K8RJH

License trustee

K8ZFR

WT8O

License trustee

W8HBI, W8BM,

W8GC



April 8, 2021

